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Response to Office Action dated June 19, 2007

This listing of claims will replace all prior versions, and listing, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A local monitor unit for transmitting status information formed of a plurality of pieces of status information indicating an operation state of a machine to be monitored to an integrated monitor unit through a computer network, said local monitor unit comprising:

a local information getting unit for getting the status information of the machine connected to a first-type local computer network by identifying an address of the machine;

a local information retaining unit for retaining the status information obtained by the local information getting unit and individual information of the machine;

a local information transmitting unit for transmitting at least a part of the plurality of pieces of the status information retained in the local information ~~getting~~retaining unit to the integrated monitor unit through a second-type wide area computer network; and

a ~~machine information~~data transmitting unit for transmitting ~~a machine information~~data to the integrated monitor unit through the second-type wide-area computer network, the ~~machine information~~data being employed for registering the machine to be monitored and the first-type local computer network connected to the machine prepared based on the individual information retained by the local information retaining unit into the integrated monitor unit;

wherein the integrated monitor unit identifies the status information is for which machine to be monitored and connected to which first-type local computer network, based on the

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~~machine information~~data registered in the integrated monitor unit, to thereby make a

predetermined display display the status information, the status information being transmitted by

~~each of a plurality of local monitor units~~the local monitor unit at a ~~unique timing set by each of~~

~~the plurality of local monitor units uniquely~~predetermined timing set at the local monitor unit.

2. (Currently amended) A local monitor unit according to claim 1, wherein said

local information getting units gets the status information in a first period,

said local information retaining unit updates the status information of the machine

whose operation state has been changed into the most recent status information before

transmitting the status information to said integrated monitor unit, and

said local information transmitting unit transmits the most recent status

information of the machine to the integrated monitor unit ~~at once in~~during a second period that is

longer than the first period.

3. (Currently amended) A local monitor unit according to claim 2, further

including a state determination unit for determining ~~whether or not~~if the status information

gotten by said local information getting unit indicates an abnormal state of the machine,

wherein said local information getting unit gets the status information in a period

shorter than the [[.]]first period only while said state determination unit determines that the status

information indicates an abnormal state of the machine.

4. (Original) A local monitor unit according to claim 3, wherein said local

information getting unit gets the status information of a plurality of machines and while said

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state determination unit determines that the status information gotten from a specific machine

indicates an abnormal state of the machine, gets the status information only from the specific

machine in a period shorter than the first period.

5. (Original) A local monitor unit according to claim 2, further including a state

determination unit for determining whether or not the status information gotten by said local

information getting unit indicates an abnormal state of the machine,

wherein when said state determination unit starts to determine that the status

information indicates a fatal error of the machine, said local information transmission unit

transmits information indicating the fatal error to the integrated monitor unit regardless of the

second period.

6. (Original) A local monitor unit according to claim 5,

wherein when said state determination unit determines that the fatal error is

solved within a predetermined time or the fatal error continues over a predetermined time, said

local information transmission unit transmits status information indicating the fact to the

integrated monitor unit regardless of the second period.

7. (Currently amended) A local monitor unit according to claim 1, further

including a display unit for displaying a main screen for indicating information concerning every

machine connected through the first-type local computer network and a subscreen for indicating

detailed information concerning a specific machine specified on the main screen.

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8. (Currently amended) An integrated monitor unit which can communicate with a plurality of local monitor units through a second-type global computer network, each of the local monitor units monitoring through a first-type local computer network an operation state of ~~each~~at least one of a plurality of machines to be monitored ~~through a first-type local computer network~~, said integrated monitor unit comprising:

a global information getting unit for getting status information indicating the operation state of the ~~machine~~machines to be monitored respectively by ~~any one of~~the local monitor ~~unit~~units from said local monitor ~~unit~~units through the second-type global computer network;

a database for storing information concerning each of the machines;

a database management unit for updating said database based on the status information gotten by said global information getting unit;

a display unit for displaying the information stored on said database; and

a ~~machine information~~data receiving unit for receiving ~~machine information~~data for registering said machine of which operation state is transmitted by ~~the~~an associated said local monitor unit voluntarily and the first-type local computer network connected to said machine through the second-type global computer network,

wherein each of the plurality of local monitor units transmits the status information of the machine at a predetermined timing ~~uniquely set for each~~set at that said local monitor unit, and

said database management unit registers the ~~machine information~~data received through the second-type global computer network into said database and ~~identifies~~determines

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that the status information is for ~~which~~a particular said machine connected to ~~any~~ one of the first-type local computer network~~s~~ based on said registered ~~machine information~~data.

9. (Original) An integrated monitor unit according to claim 8, wherein said database also stores the past status information of the machines gotten by said global information getting unit, and wherein said display unit displays a main screen for indicating the status information of the machines connected through the first-type local computer network and a subscreen for indicating a history of the status information of a specific machine specified on the main screen.

10. (Original) An integrated monitor unit according to claim 9, wherein the main screen indicates the most recent status information of each machine.

11. (Currently amended) An integrated monitor unit according to claim 9, wherein the main screen indicates the status information of <u>for the</u> machines grouped ~~for~~<u>by</u> each first-type local computer network.

12. (Original) An integrated monitor unit according to claim 9, wherein the status information contains information indicating the remaining amount of a consumable article and wherein the subscreen for indicating a history of the status information of a specific machine displays a history of the remaining amounts of the consumable article of the machine.

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13. (Original) An integrated monitor unit according to claim 8, wherein the status information contains remaining amount information of a consumable article of each of machines, and said integrated monitor unit further comprises:

a statistical processing unit for predicting statistics of the remaining amount of the consumable article based on the status information; and

an output unit for outputting the remaining amount statistics of the consumable article predicted by said statistical processing unit.

14. (Currently amended) A machine monitor system for executing centralized ~~monitor~~monitoring of status information indicating an operation state of each of a plurality of machines to be monitored, said machine monitor system comprising:

a plurality of local monitor units for respectively transmitting status information of a plurality of machines each to be monitored at a predetermined timing ~~uniquely set for each~~set at a corresponding said local monitor unit, each of the machines being connected to a first-type local computer network; and

an integrated monitor unit for receiving and monitoring the status information transmitted from each of the local monitor units through a second-type global computer network,

wherein each of the local monitor units comprises a transmitting unit for voluntarily transmitting to said integrated monitor unit ~~machine information~~data for registering an associated said machine ~~of which~~whose operation state is transmitted by the local monitor unit ~~arid~~and the first-type local computer network connected to said associates machine ~~into~~to said integrated monitor unit through the second-type global computer network, and

wherein said integrated monitor unit comprises:

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a receiving unit for receiving the ~~machine information~~data transmitted from each

of the local monitor units; and

a unit for registering the data received ~~machine information~~from the local monitor

units and ~~identifying~~determining that the status information is for ~~which~~a particular said

machine connected to ~~any~~one of the first-type local computer network~~s~~ based on said registered

~~machine information~~data to thereby ~~displaying~~display the status information on a given display.

15. (Currently amended) A machine monitor method comprising:

a local monitor step of monitoring an operation state of ~~each of machines~~a

machine through a first-type local computer network; and

a global monitor step of monitoring said operation state of said machine

connected to the first-type local computer network through a second-type global computer

network,

wherein said local monitor step comprises:

a local information [[.]]getting step of getting the status information of the

~~machines~~machine;

a local information retention step of retaining the gotten status information;

a local information transmission step of sending the retained status information to

the second-type global computer network at a ~~uniquely set~~predetermined timing; and

a ~~machine information~~data transmission step of voluntarily sending to the second-

type global computer network ~~machine information~~data for registering said machine ~~of~~

~~which~~whose operation state is transmitted by the local monitor unit and the first-type local

computer network connected to said machine at said global monitor step,

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wherein said global monitor step comprises:

a ~~machine information getting~~data getting step of getting the status information through the second-type global computer network;

a ~~machine information~~data registration step of registering the gotten status information into a database for storing information concerning the machine to be monitored;

a global information getting step of getting the information through the second-type global computer network;

a status information management step of identifying the status information gotten at said global information getting step is for ~~which~~a particular said machine connected to ~~any one of~~ the first-type computer network based on said registered ~~machine information~~data and updating the storing information concerning the machine in the database by the identified status information; and

a display step of displaying the updated and stored information on a given display.

16. (Original) A machine monitor method according to claim 15, wherein the status information contains remaining amount information of a consumable article of each of machines, and said global monitor step comprises:

a statistical processing unit of predicting statistics of the remaining amount of the consumable article based on the status information; and

an output step of outputting the remaining amount statistics of the consumable article predicted by said statistical processing unit.

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17. (Currently amended) A computer-readable medium storing a program for causing a computer which is connected to a machine to be monitored through a first-type local computer network and which can communicate with an[[;]] integrated monitor unit through a second-type global computer network to execute:

a local information getting step of getting status information indicating an operation state of the machine to be monitored;

a local information retaining step of retaining the gotten status information;

a local information transmission step of transmitting the retained status information to the integrated monitor unit through the second-type global computer network at a uniquely set predetermined timing;

a machine information data transmission step of voluntarily transmitting the machine information data for registering said machine of which whose operation state is transmitted and by the first-type local computer network connected to said machine into to the integrated monitor unit through the second-type global computer network;

whereby the computer makes the integrated monitor unit to display the status information for which the machine connected to any one of the first-type computer network based on the machine information data registered in the machine information data transmission step on a given display.

18. (Currently amended) A computer-readable medium storing a program for causing a computer which is capable of communicating with each of a plurality of local monitor units through a second-type global computer network with each of a plurality of local monitor units, each of the local monitor units being connected through a first-type local computer

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network to ~~each of machines~~at least one associated machine to be monitored ~~through a first-type local computer network~~, and which local monitor units can communicate with an integrated monitor unit, to execute:

a ~~machine information~~data receiving ~~unit~~step for receiving ~~machine information~~data for registering said associated machine to be monitored by the local monitor unit and the first-type local computer network connected to said associated machine from the local monitor unit;

a global information getting ~~unit~~step for getting status information indicating the operation state of the associated machine to be monitored by the local monitor unit transmitted from said local monitor unit at a ~~uniquely set~~predetermined timing through the second-type global computer network;

a status information management step of registering the gotten ~~machine information~~data in a given database and identifying the gotten status information for ~~which~~the machine connected to ~~any one~~the first-type computer network based on said registered ~~machine information~~data and updating the storing information concerning the machine in the database by the identified status information;

a database management step of updating the database ~~by~~with the identified status information; and

a display step of displaying ~~the~~updated information of the database on a ~~given~~ display.